



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,690		Keisuke Tamura	53375/1385	1879

23838 7590 12/10/2002

KENYON & KENYON
1500 K STREET, N.W., SUITE 700
WASHINGTON, DC 20005

EXAMINER

FINEMAN, LEE A

ART UNIT	PAPER NUMBER
----------	--------------

2872

DATE MAILED: 12/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/812,690

Applicant(s)

TAMURA ET AL.

Examiner

Lee Fineman

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-9 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 11 is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 6-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 21 October 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 21 October 2002 have been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawano et al., U.S. Patent No. 5,808,791 in view of Jörgens, U.S. Patent No. 5,535,052.

Kawano et al. discloses an inverted microscope in fig. 2 comprising an objective lens (11) disposed below a sample (9), an image-forming lens (15) for focusing observation light from the objective lens, a lens-barrel (not numbered) disposed on the front side of the microscope (fig. 2, left side), a reflecting mirror (20) for directing transmitted light passing through the image-forming lens to the lens-barrel on the front side of the microscope, an optical element (16) disposed between the image-forming lens and the reflecting mirror for directing light from the image-forming lens to form to an imaging optical path (17a), an image-taking port (column 16, lines 12-13) for mounting an imaging device(column 15, line 57) in the imaging optical path of

Art Unit: 2872

the microscope so that the image plane of the imaging device substantially corresponds to the focal plane of the image-forming lens (fig. 2), a light source (14) for reflected illumination of the sample through the objective lens, and a fluorescent cube (12) disposed between the objective lens and the image-forming lens, for directing light passed through the illuminator to the objective lens from the backside of the microscope which backside is the opposite side of the front side on which the lens-barrel is disposed (fig. 2, left side).

Kawano et al. discloses the claimed invention except for the image-taking port and the light being directed to it being on the backside of the microscope, which backside is the opposite side of the front side of the microscope on which the lens-barrel is disposed, and a first reflected illuminator coupled to the light source, for directing the light from the light source, a relay tube coupled to the first reflected illuminator, having a mirror inside for deflecting light emitted from the light source and passed through the first illuminator, and a second reflected illuminator coupled to the relay tube for directing light deflected on the mirror in the relay tube to inside of the microscope.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the position of the image-taking port to the backside, since it has been held that a mere rearrangement of an element without modification of the operation of the device involves only routine skill in the art. One would have been motivated to rearrange the position of image-taking port for the purpose of reducing the width of the microscope. *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

Further Jörgens teaches an inverted microscope (fig. 2) wherein the image-taking port (37, 40, 46, 47) and the light being directed to it being on the backside of the microscope (fig. 2,

Art Unit: 2872

right side), which backside is the opposite side of the front side of the microscope (fig. 2, left side) on which the lens-barrel (not numbered) is disposed and a light source (31), a first reflected illuminator (surrounding element 32) coupled to the light source, for directing the light from the light source, a relay tube coupled to the first reflected illuminator (surrounding element 33), having a mirror (33) inside for deflecting light emitted from the light source and passed through the first illuminator, and a second reflected illuminator (surrounding elements 34, 35, 36) coupled to the relay tube for directing light deflected on the mirror in the relay tube to inside of the microscope. It would have been obvious to one having ordinary skill in the art at the time the invention was made use a first reflected illuminator, a relay tube with mirror, and a second reflected illuminator and have them located on the backside of the microscope (as well as the image-taking port) as suggested by Jörgens in the system of Kawano et al. to make the system more compact.

4. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawano et al. in view of Jörgens, as applied to claim 1 above, and further in view of Grinblat, U.S. Patent No. 6,056,409.

Regarding claim 2, Kawano et al. in view of Jörgens, as applied to claim 1 above, further discloses a relay lens (21, fig. 2, Kawano et al.) for relaying a primary image (column 6, line 35, Kawano et al.) formed by the image-forming lens. Kawano et al. in view of Jörgens, as applied to claim 1 above, discloses the claimed invention except for an adjusting device for adjusting a focusing position with respect to the image plane of the imaging device. Grinblat teaches an adjusting device (15) for adjusting a focusing position with respect to the image plane of the

Art Unit: 2872

imaging device (column 4, lines 63-66). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the microscope of Kawano et al. in view of Jörgens to include the adjusting device of Grinblat to have independent remote control over the image.

Regarding claim 3, Kawano et al. in view of Jörgens, as applied to claim 1 above, discloses the claimed invention except wherein the adjusting device is able to adjust the focusing position in the direction of the optical axis and a direction perpendicular to the optical axis. Grinblat teaches wherein the adjusting device is able to adjust the focusing position in the direction of the optical axis (18) and a direction perpendicular to the optical axis (column 4, lines 5-11 and column 5, lines 46-57). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the microscope of Kawano et al. in view of Jörgens to include the adjusting device of Grinblat to have independent remote control over the image.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawano et al. in view of Jörgens, as applied to claim 1 above, and further in view of Coates, U.S. Patent No. 4,884,890.

Kawano et al. in view of Jörgens, as applied to claim 1 above, further discloses viewing optics (22, Kawano et al.) disposed in an observation optical path (fig. 2, Kawano et al.). Kawano et al. in view of Jörgens, as applied to claim 1 above, discloses the claimed invention except for a photo mask. Coates teaches a microscope with a photo mask (column 2, lines 53-55) in the viewing optics (30). Therefore, it would have been obvious to one having ordinary skill in

Art Unit: 2872

the art at the time the invention was made to modify the microscope of Kawano et al. in view of Jörgens to include the photo mask of Coates to accurately adjust the specimen to a desired position.

Allowable Subject Matter

6. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 9 and 11 are allowed.

8. The following is a statement of reasons for the indication of allowable subject matter:

Claims 6-9 and 11 have allowable subject matter over the prior art for at least the reason that the prior art fails to teach and/or suggest an image-forming lens for the laser beam disposed between the second light source and the third optical element as set forth in the claimed combination.

DeSimone discloses a microscope with a light source (165, column, 11, line 52) for emitting excitation light to illuminate the sample (161) via the objective lens (138), a first optical element (24) for directing the excitation light and transmit observation light from the sample which is disposed in the observation optical path along an optical axis of the objective lens, a second light source (155) for emitting a laser beam to illuminate the sample via the objective lens, an image-forming lens (20A, 20B) for focusing the laser beam, and a lens holder (76) for supporting the image-forming lens for the laser beam which enables moving the image-forming lens for the laser beam in a direction of an optical axis of the laser beam for focusing the laser beam (column

Art Unit: 2872

4, lines 25-28). However the image-forming lens is not disposed between the second light source and the third optical element as claimed.

Response to Arguments

9. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues that Kawano et al. is a normal, not inverted microscope. The examiner disagrees. Kawano et al. clearly discloses the sample (9) above the objective lens (11).

10. It is noted by the Examiner that the objection of the specification made in the previous Office Action ^{has} ~~have~~ been withdrawn due to amendment by the Applicant.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2872

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (703) 305-5414. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on (703) 308-1687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.


LAF

December 6, 2002


MARK A. ROBINSON
PRIMARY EXAMINER